
WELCOME

Congratulations on your acceptance to the Ames Astrobiology Academy. You are about to take part in the sixth assembly of the Astrobiology Academy, founded with the goal of guiding future leaders of the U.S. Space Program by giving them a glimpse of how the whole system works. The success of the Space Program results from the interaction of government, academia, and the private sector, each playing a critical and different role in the 44 year old civil program. The Astrobiology Academy is also designed to promote competence in multidisciplinary approaches to science and technology, which merges the perspectives, training, and technologies of a variety of discipline experts throughout the country to attack problems of exceptional technical difficulty. You have been chosen for your scientific accomplishments, scholarly achievement and diverse personalities. Your individual characteristics and experiences will contribute to the unique dynamics of this 2002 academy. Show your colors, give your opinions, unleash your style.

In addition to gaining experience, and building your resumes, you will be participating in the sixth year of the NASA Ames Astrobiology Academy. During this summer's program you will compete with the benchmark set by the previous five Academies, as well as setting the precedent for all future academies.

In the following pages is information that will be useful to you during your time in the Ames Academy.

Sections include:

- 1 - Astrobiology Academy History
- 2 - Academy Structure
- 3 - Pre-arrival Information
- 4 - Logistics
- 5 - Living at Stanford University
- 6 - Working at Ames
- 7 - Services and Activities at and Around Ames
- 8 - Team Activities and Events
- 9 - Other Activities

One of the most important facets of the Academy is what you and your fellow team members bring to it. It is your Academy. We encourage you to utilize the experience to your advantage.

AMES ASTROBIOLOGY ACADEMY HISTORY

NASA Ames Astrobiology Academy is based on a successful program begun at NASA Goddard Space Flight Center called the NASA Academy. The Astrobiology Academy is unique in that it focuses on a broad-base of disciplines, incorporating many sciences in order to gain a better and more comprehensive understanding of what is taking place today in the space program and to influence its future.

Following the lead of the NASA Academy, begun under the leadership of the late Dr. Gerald Soffen, former Director of the Office of University Programs – Goddard Space Flight Center, the NASA Astrobiology Academy provides opportunities usually unavailable to those outside and within the Agency. The objective being, in the course of the 10-week program, that you, the Research Associates, be exposed to various diverse aspects of NASA and the Space Program (current research projects, developing the unique tools necessary for discoveries in space, tracing the progress of an idea from concept through completion, technology development through flight operations, data analysis to publication, the acquisition and communication of knowledge and its impact on science and society).

In 1993, the first Space Academy was formed. Twenty students, undergraduate and graduate, took part. Because of its success, it was duplicated the following year, adding four more students and a staff to the program. The success of the program spread and other NASA Centers began to take an interest in forming their own specialized academies. Marshall Space Flight Center began their program in 1994 and the NASA Ames Astrobiology Academy and Dryden Academy (Dryden Flight Research Center) were launched in 1997. As the scientific focus at each of the NASA Centers is different, each Center's Academy reflects their specific areas of specialization. The number of Academies also has the advantage of allowing more students nationwide to participate in the program.

Dr. Douglas O'Handley heads the NASA Astrobiology Academy as its Director. The Academy support staff will include David Lamb and Emily Schaller, alumni of the 1999 and 2001 Ames Academies respectively. Emily is joining the staff for the first time this year. Dave Lamb was on the staff for the Goddard Academy last summer. The Astrobiology Academy staff is available to you and invites you to seek them out. Mary Beth Bishoff and Marilyn Villegas are part of the Lockheed Staff Support. Mary Beth will be your paymaster. She handles much of the logistics around the center along with getting you badged onto the Government facility.

ASTROBIOLOGY ACADEMY STRUCTURE

The Astrobiology Academy is designed to operate as a joint effort, with equal input, ideas and energy coming from both the Academy staff and the Research Associates (RAs). The Group meetings and discussions form part of the experience, which will help to shape the Academy to your specific goals and interests.

ACADEMY STAFF

Program Director, Dr. Douglas O'Handley

As the Program Director, Doug appoints the Academy staff and has final authority in the Academy. In 1997, Dr. O'Handley was asked by Ames management to organize the Astrobiology Academy. Doug was previously a special assistant for the Center for Mars Exploration, and has been associated with space and the government for over 40 years. Doug is a bridge to the experts, as well as an expert in his own right. He is a great resource for connections within NASA itself and also among university and industry colleagues. Doug retired from NASA Ames after the 1999 Academy however, he agreed to come back and keep the Academy going. Doug directs efforts for both the Academy planning as well as strategic planning for future activities. Doug encourages input from RAs about Academy activities and is available to you during the entire 10-week period, from dawn until dusk.

Resident Assistants:

David Lamb: This will be David's second time at NASA Ames Research Center with the Astrobiology Academy. He was a Research Associate with the 1999 Academy working in the Space Sciences Division. Dave has been attending graduate school at the University of Indiana. Last summer he was a councilor for the Goddard Academy and will bring to us a wealth of information for the Ames organization.

Emily Schaller: Emily was a Research Associate with last year's Academy. She has spent this past year finishing up her degree at Dartmouth College. She is a US ranked figure skater and you just might get her to skate for you during the summer.

Both David and Emily will bring a wealth of experience to help you make a smooth introduction to life in California and also to make sure your summer is the best ever. As alumni of the Ames Academy experience they will be an invaluable resource to all of you both before you arrive and after you get here. They will coordinate the driving and other aspects of the Academy. **David and Emily will be with you all summer. They will be responsible for your care and arrival at the various functions.**

RESEARCH ASSOCIATES

The Research Associates (RAs) are the student researchers of the Astrobiology Academy. Thirteen RAs will attend the Academy this year. The responsibilities of the RAs are described in detail in a later section, but boil down to:

- supporting academy functions (guest lecturers, daily pow-wows, weekend excursions)
- collaborating with PIs on individual projects
- taking responsibility for cooperatively running the Academy with the other RAs and staff
- giving interim and final presentations describing work accomplished during the summer program
- cooperating and contributing to a group project, to be carried out during the summer program
- getting and giving the most out of and to the Academy—making your mark!

Think of the Academy as a democracy. It is your time and your future you are investing in and you will be given an opportunity to tailor this Academy to suit your purposes and objectives. RAs are expected to work together as a team, making as many decisions that affect the Academy as are feasible and practical. Specific tasks may be broken down into smaller RA working groups.

In the nature of a true democracy, your ideas are invited and encouraged, but the Academy staff will have final authority over policies and budget issues.

BEFORE YOU ARRIVE AT AMES RESEARCH CENTER

You will have this handbook to use as a reference guide before you arrive at Ames. The following sections should give you an idea of what to take care of BEFORE coming to Ames for the summer.

E-MAIL CONTACT

Assuming that you have an e-mail account, be sure to monitor it regularly for updates and information on the Academy. Most of you should be in semi-regular contact with the staff and other RAs through e-mail, which gives you an opportunity to not only get to know each other a bit, but also coordinate important items, such as, who is in charge of bringing the stereo, etc.

CONTACT YOUR PI

With your acceptance letter, you should have received a project assignment and been assigned to a Principal Investigator (PI). A PI is the lead engineer or scientist on the aforementioned project. In effect, he or she is your boss during your time at Ames. It is very important, therefore, that you contact (by phone, e-mail, or fax) your PI before your arrival date at the Academy. Your PI can provide you with information about the lab or office where you'll be working, what you'll be doing and any other questions you may have. Your PI can also send you information or recommend reading to bring you up-to-speed on the area of research before you get here. All of this will help to ensure that things run smoothly from the beginning of the program.

BANKING

You should receive, before your arrival at the Academy, a stipend from your Space Grant. This is money for you to use at your discretion during the summer program. It is recommended that you bring at least \$200.00 in traveler's checks in order to get you started, in case it takes time for checks to clear, etc. Golden Bay Credit Union is located at Ames and can be reached at (650)969-1661. If you'd prefer to set-up an account closer to Stanford, we can provide you with a list of Palo Alto banks upon your arrival.

It is probably a good idea to set up accounts AS SOON as you arrive.

CLOTHES TO BRING

As we mentioned earlier in the Handbook, there will be occasions (field trips, dinners, lectures, hot dates?) when you'll need to wear more formal/business attire (suit & tie or dress, depending upon preference), so toss those things into your suitcase.

Also include business casual stuff as well as comfortable, warm weather clothes. Talk to your PI about lab or office dress ahead of time.

Note: summer days are pretty toasty, but evenings, especially in San Francisco, can be chilly (as Mark Twain once said: "the coldest winter I ever spent was a summer in San Francisco"), so pack a coat...and a bathing suit and anything in between.

ADDITIONAL ITEMS TO PACK

- a day pack for excursions, etc.
- camera for wacky Kodak moments
- student ID for movie, museum, discounts, etc.
- desk lamp for more custom lighting in Phi Sig House at Stanford
- photos of your hometown, family and friends to share with fellow RAs and staff
- walkman for trip rides
- sunscreen, shades, rollerblades, tennis racket, etc.
- bicycle and lock
- hiking boots, good walking shoes

CARS

Some of you may opt for driving your own car to the Academy rather than arriving by plane. Cars are welcome and can be a lifesaver. Northern California does have some public transportation, but it is by no means comprehensive or to be heavily relied upon.

Cars will be very useful for things like getting yourselves to the grocery stores, movie theaters, to different cities for dinner or weekend trips, and above all, for getting you all to Ames during the week. This is yet another topic that can be discussed over e-mail. Decide before you get here who will be bringing cars and how many passengers they can carry. **Those planning on driving should let Dr. O'Handley know as soon as possible.**

The Academy will have a van available for transportation of the RAs to and from Ames and for all Academy out-of-town events.

ARRIVAL ARRANGEMENTS

There are two airports probably equidistant to Ames and Stanford, San Jose Airport and San Francisco Airport. San Francisco might be the most convenient, as more flights arrive and depart from that airport but San Jose is much closer to Stanford and much easier to pick you up.

Arrange your arrival dates and times so that you will be here around noon on Sunday, June 23rd. It would be really groovy if some of you could arrange to come in around the same time, creating fewer pick-up trips and more interesting conversations in the shuttle van.

If you do not notify us of your arrival place, airline, airline flight number, date and time, it is not likely that you will be picked-up by a staff member unless you possess tremendous ESP. Tell us the airline, the flight number(s) and when and where—and we'll be there to meet you! The sooner we know your travel plans, the better we can coordinate schedules and meeting points.

Arrival Day Advice

Once you have secured your things in the dorms and found your bearings, you might want to make use of the free hours (while others are installing themselves in their quarters) to get anything you may need for the first week or so: soap, detergent, snacks, etc. The first week of the Academy will be VERY busy. You may not have spare time.

Your arrival Sunday will conclude with a BBQ at Dr. O'Handley's home. There is a very large Jacuzzi for all to enjoy. Maps will be provided at Phi Sig.

LOGISTICS

MEALS

The Academy covers the costs for room and board for all RAs. All your meals will be provided. Evening meals will be covered by your meal per diem and breakfast and lunch on Monday through Friday will be provided by the Ames Cafeteria. You will receive a per diem for your evening meal and weekend and excursion meals.

Meal Schedule and Payment

<u>Time</u>	<u>Location</u>	<u>Payment</u>
Breakfast		
Monday - Friday	Ames Cafeteria	vouchers
Saturday and Sunday	Stanford or out & about	per diem
Lunch		
Monday - Friday	Ames Cafeteria	vouchers
Saturday and Sunday	Stanford or out & about	per diem
Dinner		
Monday - Friday	Stanford or out & about	per diem
Saturday and Sunday	Stanford or out & about	per diem

AMES CAFETERIA AND OTHER OPTIONS

Breakfast and lunch are available at the Ames Cafeteria from 7:00 a.m. to 2:00 p.m.

The Academy will meet for breakfast every morning at 7:30. Lunch times will be posted when you arrive.

If there is a time when you cannot face another day at the Cafeteria for lunch (not unheard of) there is another option, not free but cheap, close to Ames. The Moffett Deli,* (just outside the Moffett gates—across and down from the ARCO station—has sandwiches, pasta, potato and macaroni salads, as well as raviolis, meatloaf and a tasty carrot cake). Sandwiches run about \$3.50 - \$4.00, salads and ravioli about \$1.50. Open until 8:00 or 9:00 p.m., many Ames employees find this a dependable alternative to the Ames Cafeteria.

On base, there is also a McDonalds* and a Baskin-Robbins* (which has its own deli).

Baskin Robbins Ice Cream & Deli

tel. 603-9930

hours 10:30-5:30

*Note: these cannot be paid with vouchers.

PER DIEMS

Out & About (Per Diem Meals)

These meals give you an opportunity to try local restaurant. A list of local eateries are included in a later chapter.

Unfortunately, like all good things, there is a dollar limit on the per diems. The Academy is a federally funded agency. The taxpayers do not willingly give money for others to live “high on the hog.” Alcohol is not something the Academy can reimburse you for, either. It is imperative that you keep your receipts in order to get reimbursed.

Per Diem Amounts

To be decided

Note: - you will not be reimbursed for alcohol
- all meals/food must have receipts!!

Per Diem System

There will be five (5) pre-paid per diem periods for Research Associates during the summer. Dates will be announced upon your arrival.

Per diems are to cover primarily evening and weekend meals. You will need to keep the receipts for all the meals you purchase with this money!

At the end of each per diem period (which will be explained once you’re here) you will need to turn in a per diem spending form and the receipts you have collected along the way. You will not receive your next reimbursement check UNTIL you have completed and handed in paperwork (receipts and sheet) for the previous per diem period.

Information asked for on the per diem chart is where you ate, the date and amount of meal, tips, etc. Account for every cent you spend.

An example would be:

7/19/99	Joe’s Cafe	\$5.50 food and tax	\$1.00 tip
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Amounts over and above your per diem allowances will be paid for out of your pocket.

Keep track of meal spending on the forms provided. Forms will be turned in to Mary Beth Bishoff on the specified due dates, at which point, you will receive your next per diem installment.

Meals during Excursions

The Academy will be taking several field trips during the summer program. Some will be official, some unofficial and some a mix of both. The meal reimbursement arrangements will vary accordingly. We will discuss this once you arrive.

MILEAGE REIMBURSEMENTS

The Resident Assistants and/or the Director may ask for your assistance (to drive personally-owned cars) and, in this instance, reimbursement will be provided at \$0.325 a mile. Reimbursement for use of personal cars must be pre-approved by Doug.

COMPUTER ARRANGEMENTS

There will be computers for your use both at Phi Sig and at Ames. We will discuss this in more detail once you arrive. ***If any of you plan to bring portable computers, please let Doug know as soon as possible.***

LIVING AT STANFORD UNIVERSITY HOUSING

Located approximately 12 miles from Ames Research Center, Stanford is a collegiate mecca close to Palo Alto's many restaurants, cafés, bookstores, etc.

Housing will be provided at Phi Sig House on the Stanford University campus with more details to come, but here are a few to get you started.

You will receive mail and phone messages at:

Your Name
c/o ASTROBIOLOGY ACADEMY
Xanadu House
558 Mayfield Street
Stanford, CA 94305
(650)725-8057

Due to the large volume of mail that Stanford receives for summer housing, please inform friends and family to make "ASTROBIOLOGY ACADEMY" explicit in the address.

AMENITIES

All of the services listed are more thoroughly explained in a separate informational sheet on Stanford. This is to simply outline what to expect.

Library

As RAs of the Astrobiology Academy, you will have access to the Stanford Libraries, but will most likely not have borrowing privileges. ID is required.

Swimming Pools

Two pools are available in the summer for a fee. In order to obtain the necessary entry card, call deGuerre Pool at (650)725-0725 or Roble Pool at (650)723-8136. Hours are listed on Stanford informational sheets. The card fees are approximately \$50.00 per person.

Tennis

No charge for courts, but you usually have to sign-up for an hour and a half block on the night before. See Stanford sheet for location.

Golf

Stanford Driving Range (650)323-9516

Handball/Squash/Racquetball

Courts located near north end of deGuerre complex. Courts are open from 2-7p.m. to all card holders.

Ticket Office

Stanford Ticket Office (650)725-ARTS

For most major Bay Area events, call BASS at (408)998-2277

Banking Services

Wells Fargo and four (4) ATMs on campus, open 9 - 4 p.m. Monday -Friday. Call (650)855-7639.

Copy Center

Pulse Copy Center is a full service copy center, open Monday - Friday, 8:00 – 5:00 p.m.

Convenience Store

Tresidder Express has snack foods, beverages, some grocery, cleaning, health and beauty items, as well as newspapers, film and magazines.

Monday - Friday 7:30 a.m. - 10:00 p.m. Saturday and Sunday 9:00 a.m. - 9:00 p.m.

Telephone (650)723-9224.

Food Services

Several restaurants and a coffee shop can be found in the Tresidder complex. Check with the Information Center for summer hours.

Information Center

Telephone (650)723-4311. 24-hour tape gives info at (650)723-0336.

Other Services

American Express, Travel Center, hairstyling salon and a credit card and fax service are also in the Tresidder complex.

WORKING AT AMES RESEARCH CENTER

GETTING AROUND AMES

Ames is basically structured like a university campus. The Center map is on the following page.

All buildings are referred to by number, which may be confusing due to the numbering system employed, which bears little relationship to location. We assume the numbers plot a sort of calendar charting the order in which each building was constructed, but... who knows? All areas on campus can be easily reached on foot, though a bicycle or rollerblades will get you to your destination much faster. The campus is flat, with sidewalks, grassy areas and paved roads connecting buildings.

Temperatures in the summer can run between 80-90 degrees. Rain is not as common, but not to be ruled out, either. You may want to bring an umbrella, just in case.

Buildings of Interest

- 15 Building – BADGING OFFICE
- 26 Building – VISITOR/SECURITY CONTROL
- 67 Building - POST OFFICE
- 200 Building - DIRECTOR'S OFFICE
- 201 Building - AUDITORIUM
- 202 Building - CENTER LIBRARY
- 221 Building - NASA FITNESS CENTER
- 223 Building - VISITOR'S CENTER/GIFT SHOP
- 235 Building - CAFETERIA
- 245 Building (where Academy staff is located)
- ATM MACHINE/CREDIT UNION
- BASKIN ROBBINS/DELI
- McDONALDS
- NAVY GYM & POOL
- ARCO STATION (off Base)
- MOFFETT DELI (off Base)

AMES RESEARCH CENTER MAP

GETTING TO AMES

The Resident Assistants will provide van transportation to and from Ames.

CalTrain Information & Schedules

Public transportation, though limited, is available. Ames has white shuttle buses that connect the Ames campus to the Mountain View Cal Train station. Cal Train runs between San Jose and San Francisco, stopping at most cities in between. Although reliable, the schedule runs primarily during commute times.

For route times and information call **Cal Train 1-800-660-4287**. Train schedules from Palo Alto/University to Mountain View:

morning trains

<u>leave Palo Alto</u>	<u>arrive Mtn. View</u>
5:58 a.m. (first a.m. train)	6:07
7:00	7:10
7:29	7:39

afternoon trains

<u>leave Mtn. View</u>	<u>arrive Palo Alto</u>
4:49	4:59
5:18	5:28
5:34	5:44
6:04	6:14
6:33	6:43
7:18	7:28
8:18	8:27
9:18	9:27
10:48 (last p.m. train)	10:57

Bus Information and Schedules

(800)894-9908 Valley Transit Authority has information on Santa Clara County (where you will be) bus schedules.

There are city buses connecting Stanford and Moffett Field, though ‘connecting’ may not be the best word. The route is not direct and requires a few transfers, but is another option if you should need one.

- Take bus #35 near the front of Stanford University (on Palm Drive)
(toward San Antonio Shopping Center, direction south)
- Hop off at San Antonio Shopping Center
- Transfer at San Antonio Shopping Center to bus #22 (on El Camino Real)
- Hop off at Castro Street
- Transfer again at Castro Street to bus #51 toward Moffett Field

Note: Depending upon time of day, the bus may or may not go inside the Moffett gates. Best to ask your friendly, courteous driver.

GUIDELINES FOR WORKING AT AMES

Image

As a Research Associate, you will be representing the Academy and NASA at all times and in all situations. Leaving those you come in contact with a positive impression of both yourself and the Academy will only benefit the Academy AND its members. People to impress include: NASA employees, administrators, scientists, visiting industry leaders, and other people you will meet.

Dress

Ames' location in Silicon Valley, as well as in California, ensures the relaxed nature of the Center. It is not unusual for employees to wear shorts in warmer summer months, yet you will run into administrators in suits and ties, too. While there will be situations where dress attire (i.e., suits, sports coat and slacks, dresses) is advisable (such as visits to JPL, meetings with Center leaders), day-to-day priorities (in labs or in staff meetings) should be safety and comfort. Keep in mind that most labs usually require pants, closed-toed shoes and goggles for your safety. You should consult your PI before your arrival, to make sure you bring all you need.

Safety and Environmental Protection

Safety is of paramount concern at all times and you will be briefed on general and laboratory safety policies and regulations. In addition, Ames requires compliance with all federal and state guidelines related to the proper disposal of material that can impact the environment. In addition to harming yourself, others, or the environment, there are serious legal and financial consequences for failing to comply with these regulations.

Badging

Upon arrival you will be given a badge which will allow you access onto Ames at all hours of the day and night. Carry your badge with you at all times around the Center and on trips, specifically to JPL and Dryden. Your badge should be worn in a visible place on your person while on Ames premises.

If you should lose your badge, notify the staff immediately and they will walk you through the re-badging process.

Ames Security

Keep in mind that NASA Ames is a federal facility holding billions of dollars in equipment, technology and brain power/research. In accordance with all federal facilities, there are security procedures (subject to change depending upon the current political situation, terrorist threats, etc.) which must be respected and followed.

If you leave Ames and wish to return, you must have your badge with you. All entrances are protected by armed guards who have strict orders to forbid access to those without proper documents (i.e., badges).

If the security seems more relaxed during office hours, it will tighten up after hours (for example, if you have on occasion made it through without much scrutiny, this will not be true in the evening hours). Keep your badge in plain view so as to avoid any unwelcome security hassles.

If you arrive to find you have forgotten your badge, stop at Building 26 to explain who you are and see about getting telephone clearance through an Academy Director or Manager (Dr. O'Handley's number is 650-604-6746 or Mary Beth Bishoff at 650-604-1929).

YOUR WORK AT AMES ASTROBIOLOGY ACADEMY

We will plan daily pow-wows, where team members will meet with staff members to hash over any items that are pressing or to see about making additions, amendments or alterations to the Academy as it unfolds.

After the group has its first meeting, you will meet individually with your respective PIs to discuss your projects and summer work schedule. Projects, and subsequent tasks and project-related responsibilities, will vary greatly from RA to RA. If there are concerns or questions, please feel free to discuss Academy related items with a staff member. We are here to facilitate your program and your experience. We want you to be happy and prosper while here.

Individual Project

During the 10-week program, 60% of your time will be spent working with your PI on the research project assigned to you at the start of the Academy. Projects differ and PIs differ, as will the work expected. Some RAs may have tasks and responsibilities which are more research-oriented while others' duties may be more hands-on. Communicate with your PI before and during the program to better understand the scope of the work you'll be involved in.

Midterm and Final Presentations

As your project begins to take shape, you will be asked to present to your fellow RAs and guests a mid-term briefing on your PI project. In the meantime, also keep your final presentation, which summarizes the work done with your PI, in mind. These presentations (7-10 minutes long, allowing for a Q & A period) will be given to the entire Academy as well as invited guests on the last day of the Academy. Those who have not had much experience with presentations are encouraged to seek advice from those (students and staff members) who are familiar with what should go into a presentation.

Presentations should be professional, with visual graphs, charts or images, if applicable. The NASA standard for overheads (viewgraphs) is PowerPoint, which is available to all at Ames.

SERVICES AND ACTIVITIES AT AMES

AMES FITNESS CENTER

604-5804

Available to all with an Ames badge and a SIGNED PHYSICIAN'S RELEASE (the fitness center requires that you turn in the completed form before you can use equipment at the facility).

Intimate yet comprehensive, the Fitness Center offers lifecycles, stairmasters, rowing machines, a treadmill, weights and weight machines, as well as Aerobic classes. There are Ames-sponsored 2, 5 and 10 mile fun-runs once a month at lunch time. Showers and locker facilities are located inside the building.

Hours are from 6:00 - 9:00 a.m., 11:00 - 2:00 p.m. and 4:00 - 7:00 p.m. Monday-Friday.

LIBRARY

604-5157

Hours 8:00 a.m. - 4:30 p.m. Monday-Friday. Closed weekends.

MILITARY GOLF COURSE

603-8026

Call for starting time.

MOFFETT POOL

603-8025

Open for lap swimming 11:00 a.m. - 1:30 p.m. Monday-Friday; closed Saturday and Sunday.

NAVY GYM

603-9717

Hours 6:00 a.m. - 9:00 p.m. Monday-Friday.

Weekends 10:00 a.m.- 6:00 p.m. Racquetball courts available.

TENNIS COURTS

Open to all at Ames on first-come first-served basis. One court may be lit at night.

OTHER RECREATIONAL ACTIVITIES

Running, Cycling & Rollerblading

Ames is an ideal place to run, cycle or rollerblade. In addition to the surfaces being fairly smooth, flat, and wide open, Ames is a mini-wildlife refuge. In the morning, out near the Military Golf Course, you will see ring-necked pheasants, burrowing owls, jack rabbits and loads of squirrels. There are even a few friendly red foxes on the premises who will occasionally trot at your heels.

LAUNDRY/LINEN SERVICE

Phi Sig at Stanford will have laundry facilities. Bedding and towels (bring your own if you like thick towels) will be provided and changed once a week (almost like a hotel!). There is a very inexpensive dry cleaners on El Camino near Shoreline, called OnePrice Cleaners. All pieces (pants, jackets, shirts, etc.) are \$1.75. Need to pay in advance.

There are two coin-operated washing machines and two dryers at the Phi Sig for your convenience as well. Make sure you save your quarters because they become very valuable on laundry nights.

MAIL

Temporary Address

At the beginning, all mail can be sent to you c/o Ames Research Center, Ames Astrobiology Academy, Mail stop T20 - G, Moffett Field, CA 94035-1000. The fax number is (650)604-6779. Emergency messages can be left at (650) 604-6746, Dr. O'Handley's personal office number. Doug's home phone number is (408) 736-5937 or cell phone is (408) 666-4319.

Post Office

Moffett Field has a post office where stamps can be purchased and packages can be mailed. Its hours are 10:00 a.m. - 3:00 p.m.; phone number 967-4144.

Because you will be sharing your time between two areas (Ames near Mountain View and Stanford in Palo Alto), we'll provide you with some practical information on both areas.

MOUNTAIN VIEW

The most enjoyable area of Mountain View happens to be the section closest to Ames. Castro Street is about 2 miles from Ames and is hub to the Cal Train station, bus stops and lots of shops and restaurants. On the main thoroughfare you will find a plethora of new and used bookstores, boutiques, cafés and restaurants.

Book Stores

Printer's Inc.

Wide selection of new books some music, cards and a café upstairs.

Two blocks down is Double Rainbow Ice Cream which, if want to indulge, is worth a visit.

Coffee Houses

Red Rock Coffee voted best coffee after Peet's a few years back—some think it blows Peet's out of the water. On the corner of Castro and Villa.

Brew Pubs

Tied House

A hangout for many a thirsty space scientist, as well as other Silicon Valley locals looking for a quick bite and a hearty brew after the workday. Located on Villa.

Restaurants

For such a small street, there is a wide variety of eats to be had on and near Castro; Italian, Chinese, Mexican, Korean, Vietnamese, Indian, Thai. Pizza, bagels, sandwiches, and ice cream are available, too.

Also on Castro closer to El Camino are Le Boulanger bakery, TCBY Yogurt, a MailBoxes, Etc. and a beauty supply store.

We will provide you with Palo Alto/Mountain View city guides when you arrive.

PALO ALTO

Coffee Houses

Starbucks

Downtown Menlo Park & Palo Alto

Peet's Coffee and Tea

Downtown Menlo Park

Cafe Barrone

Downtown Menlo Park

University Coffee Cafe

Downtown Menlo Park

Restaurants and Brew Pubs

Blue Chalk Cafe

Pool tables, upscale pub food.

630 Ramona, Palo Alto

Celias

Good Mexican food

3740 El Camino, Palo Alto

843-0640

The Empire Tap Room

Good place for a drink. Restaurant patio.

651 Emerson, Palo Alto

321-3030

Evvia

Upscale Greek restaurant. Exceptional atmosphere.

420 Emerson, Palo Alto

326-0983

Fanny and Alexander's

Patio Bar. Perfect for a warm night. Live music.

412 Emerson, Palo Alto

326-7183

Il Fornaio
520 Cowper
Downtown Palo Alto
853-3888

Upscale Italian. Patio seating

Higashi West
636 Emerson
Downtown Palo Alto
323-9378

Great Sushi.

Hobees
Town and Country Shopping Center
El Camino Real/Embarcadero, Palo Alto

Great Breakfast. Health stuff.

Jamba Juice
Town and Country Shopping Center
El Camino Real/Embarcadero, Palo Alto

Good Smoothies

Left at Albuquerque
445 Emerson
Downtown Palo Alto

Excellent margaritas. Chips and salsa

Mikes Cafe
2680 Middlefield Road
Mid-town Palo Alto

Excellent breakfast place. Patio seating

Miyake
140 University Ave
Downtown Palo Alto

Great Sushi; loud and wild!

MENLO PARK

Restaurants

Cafe Barrone
1010 El Camino Real
Downtown Menlo Park

European atmosphere. Good place to read the paper and have a cup of coffee.

Draegers Market & Bistro
1010 University Ave
Downtown Menlo Park

Good brunch/lunch. Upscale breakfast.

The Dutch Goose
3567 Alameda de Las Pulgas
West Menlo Park

Great dive bar. Burgers/clams.

Gambardellas
561 Oak Grove
Downtown Menlo Park

Excellent Italian food. Romantic atmosphere.

Mextogo
1081 El Camino Real
Downtown Menlo Park

Great take-out Mexican, super cheap!

The Oasis (The “O”)
El Camino Real
Menlo Park near Stanford Shopping Center

Great dive bar/burgers’ good place to watch a game

Vida
641 Santa Cruz Avenue
Downtown Menlo Park

Bistro. Fresh seafood.

REDWOOD CITY/WOODSIDE/PORTOLA VALLEY, ETC.

Restaurants

City Pub
2620 Broadway
Downtown Redwood City

Great pub food. Good beers on tap.

Buck’s
3062 Woodside Road
Downtown Woodside

Good breakfast place.
Excellent casual dinner/atmosphere

Alpine Inn
3915 Alpine Road
Downtown Portola Valley

Perfect to sit outside on an afternoon with a beer or two.

Sushi Mainstreet
Downtown Half Moon Bay

The best sushi around. Great atmosphere.

TEAM ACTIVITIES

We'd like you to think of the Academy as an intensive summer-long program, where learning occurs at every hour, encounter, and exchange. Learning opportunities are not limited to your hours at Ames with your PI. And, the Academy itself extends beyond just the 7-5 workday.

As alluded to in earlier sections, you are a member of the Academy 24-hours a day. When the workday concludes, there are still decisions to be made with fellow RAs back at base camp. In this section the decision making process (up to the RAs) of the Academy is outlined.

RAP SESSIONS

These will be traditionally held at Ames on a daily/weekly basis, depending upon need and activities. Staff and RAs will discuss everything from adjusting to the Academy lifestyle, to weekend activities and group projects. These can be as loosely structured as you wish. This is your time to problem-solve, brainstorm, plan and build the Academy.

RA COMMITTEES

Once you are at Ames, the RAs will be setting-up work group committees. This is another item to be discussed upon your arrival. We can't do it without you. We need you here!

GUEST EXPERTS

One of the many advantages of being an Academy member is the opportunity to learn about and talk with many guest lecturers from both NASA and related agencies. These world renown experts and personalities might range from Astronomer Frank Drake to Habitable Zones expert Jim Kasting. You will also meet many NASA scientists, engineers, and administrators, as well as industry representatives from Silicon Valley corporations, etc. Many of these scientific and industry superstars are not generally available to NASA employees. These are special opportunities available to you, the Academy members.

On average, meetings with guest experts may last 1-2 hours. Most of these meetings will allow time for introductions, a prepared lecture or presentation and an opportunity to ask questions. The Q & A period provides an opportunity to take these sessions in the direction that most interests you. It is also a chance to impress upon the guests what a unique group the Academy members are. You will receive information on these guest speakers from staff well in advance, which will give you time to think-up questions or issues you'd like to discuss.

INTRODUCTIONS

At most of the meetings with experts, the experts will introduce themselves and will look forward to being introduced to you, the Academy members. Things the guests will be interested in are, of course, your name, school and major, PI project and explanation of it (if it seems appropriate) and the PI you're working under. There may be times when you'll be called upon to introduce your fellow Academy members, so get to know each other.

To provide a vague idea of what you might say, here's a sample:

Hi, I'm _____. I am attending/graduated from _____ University, where I am studying/received a BS in _____. I am currently working for _____ on _____ project.

FIELD TRIPS AND EXCURSIONS

The Academy will take several day and weekend excursions/field trips together. A trip to open up the Academy will be taken to Lake Tahoe over the Fourth of July weekend. Those of you driving might include in your gear any camping items, like a sleeping bag, etc. We will see how we can accommodate all of us in lodgings. We expect to visit Dryden Flight Research Center in the Mojave Desert, which will be VERY HOT. From there, we'll head to the Jet Propulsion Laboratory in Pasadena, California, Scripps Institute in San Diego and for the grand finale, to the home of Mickey Mouse (his California home, that is), Disneyland, for a day. Another trip in the works is to Vandenberg, CA for launch of a satellite. Visits to San Francisco's many diverse neighborhoods, Napa and Sonoma Valleys, Lick Observatory, Monterey Bay Aquarium and an afternoon at Pt. Lobos State Park are possibilities as the Academy sees fit. The transportation and logistics for field trips will be planned and carried out by both RAs and staff. Details will be discussed in the morning pow-wows. All of you planning to drive to the Academy should let Dr. O'Handley know as soon as possible.

GROUP PROJECT

In addition to the RA's individual projects at Ames, we require that RAs work together on a group project. A few examples are shown below.

- A comet impact study
- A follow on project to explore the lunar water potentially found by the Lunar Prospector on the poles of the moon.
- The 2000 Academy developed sterile sample collection procedures for a manned mission to Mars, coordinated the implementation of these procedures at Devon Island in the Canadian Arctic and performed biomass analysis on the collected samples to gain information for optimal site selection.

This summer we will try to improve upon the experience from past summers and propose a group project and then let you develop it as you see fit. The topic is predicated on a permanent base on the moon. Dr. O'Handley will be providing more information soon to help you get discussions under way. Dr. O'Handley has submitted an abstract to the World Space Congress in Houston, Texas in October and the results of these summer efforts will form the paper. Funds will be sought to pay for travel by two the academy RAs to attend this Congress.

If however there is another compelling idea proposed by the Academy 2002 to undertake another task it should be finalized by the end of the first week on the 10-week summer.

The group project is yet another opportunity to develop your leadership skills. It is one project that allows RAs to work together on a specific project, since most of your scientific work will be conducted with your respective PIs.

It would be highly advantageous to formulate and begin your group project as early as possible. It will be a very busy 10 weeks and you will most likely discover that time will fly by. Getting a head start on the group project is highly advised.

MEETINGS WITH THE DIRECTOR

We recommend that RAs set-up a meeting *as early as possible* with the Academy Director, and additional meetings later, if you feel you want or need them. The purpose of this meeting is to get to know your Academy Director. By taking advantage of these opportunities to meet with Dr. O'Handley, you may become more aware of other opportunities available to you inside and outside of NASA. It also provides a chance to voice your opinions and help influence Academy policy. And, it will give you a chance to know Dr. O'Handley, who, besides being a fantastic resource and an outgoing personality, is a very diverse and interesting guy!

OTHER ACTIVITIES

Official Academy activities will take up most of your time. Ideally, we'd like to schedule it so you have just enough time to breathe without enough time to get into trouble!

Most of the weekends will be taken up with planned group activities and trips while a few weekends will be open for you to plan your own activities. One weekend will be set aside for your investigation of possible graduate schools and another for parent visits. The parent visit weekend has become a real winner these past two years. One of the pluses of the Ames Academy is its central location to many things. Within a few hours drive of Ames is the wine country (made up of Napa and Sonoma Valleys), Yosemite National Park, and the striking northern coastal cities of Monterey and Santa Cruz. The historic, eclectic and handsome city of San Francisco is just an hour north, reached by Cal Train or automobile. We encourage you to take part in these outside activities with fellow RAs, as one of the main objectives of the Academy is for you to develop alliances and friendships with others in the program which you can maintain throughout your careers.

SAN FRANCISCO

GETTING TO AND FROM SAN FRANCISCO

Cal Train can take you to San Francisco's only station in the SOouth of MArket (SOMA) district, but the easiest way to arrive is by car. A car will allow you the mobility to see more of the neighborhoods and areas in the city. Parking is a pain, but can be tackled. Beware of the many street sweepers, 2-hour parking and tow signs posted on streets. The meter maids are ruthless!!

Cal Train **1-800-660-4287**

(call for more times; these listed are just a small sampling of what is available)

<u>leaves Palo Alto</u>	<u>arrives San Francisco</u>
Saturdays	
8:27 a.m.	approximately 1 hour later
9:27 a.m.	
every hour at 27 minutes after	
until 6:27 p.m.	
<u>leave SF</u>	<u>arrives Palo Alto</u>
8.00 p.m.	approx. 1 hour later
10.00 p.m.	
11.59 p.m.	

cost is \$4.00 one way

CAR

Take 101 North to the 9th street/Civic Center exit, which leaves you in the SOMA, near downtown. Or take 280 North, exiting on 6th or 4th streets, which again leaves you near Downtown, this time closer to the Embarcadero district.

MAPS

We will give you maps of San Francisco when you arrive but we welcome you to check out guide books before your departure dates. The Knopf Guide of San Francisco provides comprehensive practical information, as well as giving historical information on San Francisco's beginnings.

GEOGRAPHY AND ORIENTATION

San Francisco (frequently referred to as “The City”—but NOT Frisco) is an easy city to navigate. Obvious landmarks are the Golden Gate Bridge, which is to the north, the San Francisco Bay to the east and the Pacific Ocean, to the west. Water, water everywhere. Each neighborhood has its own special landmark: Downtown has the “pyramid” (TransAmerica Building), North Beach has Coit Tower, Chinatown’s could be the arched entryway on Grant at Bush Street.

A city famed for its hills, it is also possible (and scenic) to walk the periphery along the water, through Fisherman’s Wharf, the Marina District, the Presidio, Ocean Beach, Golden Gate Park, etc.

Good, simple safety advice was best stated by a friend of a friend, who noticed that wealthy families inhabit neighborhoods with views. So, if you’re feeling uneasy about your location, WALK UP.

Two streets to avoid are Ellis and Eddy, especially west of Taylor street. It’s a little rough and there’s not much to see. Your time is better spent, and your life longer preserved, in other areas.

San Francisco is a simple grid system north of Market street, which runs diagonally across the southern part of the city. The only streets that could be confusing are the streets named after numbers, i.e. 1st, 2nd, etc. Keep in mind there are two sets: the Streets (First Street) and the Avenues (First Avenue). The Streets are closer to downtown, while the Avenues are out toward the ocean. There are 49 Avenues, 49th being a block from the Pacific Ocean, which is about 10 miles from Downtown. While there are things and neighborhoods of interest out there (like Golden Gate Park, which runs the length of all 49 Avenues) most of the tourist areas are closer to Downtown.

Most of the Streets tend to be in the SOMA (South Of Market Area), which contains a mix of business offices, industrial buildings and some hip restaurants.

MAJOR AREAS & ATTRACTIONS

Alcatraz

A former maximum security federal penitentiary now with guided tours.
(415)773-1188 Blue & Gold Fleet (information recorder)
(415)705-5555 Blue & Gold Fleet (order tickets by phone)

Downtown/Union Square

Shopping Central. Macy’s, Tiffany’s, Gumps, FAO Schwartz, etc. Nice view from top of Hotel St. Francis and the Mark Hopkins’ “Top of the Mark”

Embarcadero

Piers, ports and pubs on the water. Ferry Terminal Building is take off point from San Francisco to Sausalito, Larkspur and Tiburon. Business and hotel district.

Financial District

“Wall Street of the West” with the Pacific Stock exchange and landmarks like the TransAmerica pyramid.

Chinatown

Shops, restaurants and residence to the populous Chinese community.

Nob Hill

Ritzy area on top of hill was once home to the Big Four railroad tycoons. The Big Four restaurant and Huntington Hotel stand as landmarks to where their mansions once stood.

North Beach

San Francisco’s Italian heritage is made known through many Italian restaurants, shops, and cafés. Visit popular spots such as Vesuvio, City Lights Bookstore, and Café Trieste.

Telegraph Hill/Russian Hill

Sweeping views of San Francisco from this landmark, where inside Depression era murals were painted by Diego Rivera. Good comet and/or meteor shower watching spot.

Hayes Valley

The city’s soul neighborhood mixes with new wine bars, art galleries and classical music stores.

Jackson Square

The six block area, at the foot of Chinatown and North Beach, maintains the few remaining gold rush era buildings. Its new residents are posh restaurants and art galleries. The Cypress Club or Bix is a glitzy place for a martini, where business types go to see and be seen.

Civic Center

This area is under construction, with the new library as its most recent accomplishment. State of the art—with computer terminals hooking to the Internet—the library’s themes are light and bridges, both of which are nicely balanced in this airy-feeling, comfortable book depository.

Japantown

Sushi restaurants and the Kabuki Theaters are some of the attractions you’ll find within the landscaped mall that marks the center of Japan Town.

Marina District

The Palace of Fine Arts building, lit at night, serves as this neighborhood's landmark, which features a yacht harbor, nice houses on landfill and a yuppie ambiance on Chestnut and Union Streets, along which are lots of reasonably priced restaurants. World Wrapps flaunt their 90's burrito, filled with ingredients like marinated salmon, BBQ chicken, paella, and sautéed veggies with goat cheese. Pluto's serves turkey and mashed potatoes. Noah's Bagels is another fast fix favorite. The Grove, with its café atmosphere, serves salads and other light fare.

Pacific Heights

A great drive or walk through some of the ritzier neighborhoods, featuring restored Victorians, Italian and French-styled mansions, several embassies, and lovely gardens. Jackson street north of Van Ness is a good sampling of how the other half live.

SOMA

This area (SOUth of MARket) in development, formerly home to industrial centers, is currently being transformed to suit the young multi-media types whose offices occupy many of the resurrected brick factory warehouses. More and more trendy restaurants and night clubs are popping up in this area.

Mission

Built around the Mission Dolores, the 6th mission built by Indians for the Franciscan missionaries between 1776 and 1791 (some dispute between guidebooks). The area is teeming with Hispanic culture and residents, so there are many great restaurants, salsa clubs and art galleries with a Latin American flair.

The Castro

The eclectic mix of restaurants, cafés, movie theaters and art galleries here cater to San Francisco's gay community. Home to the Castro Theater, where old San Francisco favorite films like "Vertigo" are often resurrected.

Haight-Ashbury

It is not what it was in the days when Janis Joplin, the Grateful Dead and Jefferson Airplane used to hang out. It is now home to punks and young professionals, trendy clothing stores, eclectic restaurants and constant entertainment, some planned, some spontaneous. IF you are 21, and are in the Haight, it would be worth it to stop by ZamZam for a martini and observe a San Francisco original. Hours are irregular and martinis are the only libation available, which is part of the fun.

Twin Peaks

Some of the best panoramic views of San Francisco are here. Good place to watch meteor showers, too.

Golden Gate Park

A lush green oasis in a wacky city that spans 50 city blocks, starting near the Panhandle and ending at the Pacific Ocean. Walking and bike trails abound, as do free summer concerts, rollerbladers and picnickers. Inside the Park are lakes, a buffalo paddock, tennis courts, rose garden and a polo playing field. The California Academy of Sciences, with its Aquarium, Planetarium and Art Museum, is also located here.

Lincoln Park

One of the prettiest areas of San Francisco with a splendid view of the Golden Gate Bridge and the Bay—it is a great spot for picnicking. It is home to the California Palace of the Legion of Honor, a recently renovated museum with great exhibits and a vast and unique permanent collection, ranging from Roman statues to ornate Spanish 16th century ceilings and Louis XIV parlors.

Fisherman's Wharf/Pier 39

A big draw for tourists, on the water with fresh fish, clam chowder & Sourdough French bread. Ferry boats for Tiburon, Sausalito and Angel Island depart from or near here.

ENTERTAINMENT

For San Francisco, Berkeley and Oakland, the San Francisco Chronicle/Examiner Sunday paper has a special section called the Datebook, (or “pink section” for its pink pages). It IS the HOT TICKET to entertainment in the Bay Area. In addition to plays, opera, symphony, and concert listings, there are many lectures (academic and non) available to the public on a weekly basis. The abundance of cultural activities is almost OVERWHELMING.

On the web, CitySearch and Microsoft's Sidewalk are on-line city guides filled with up-to-date info on San Francisco. If you have access to the Web, you have a wealth of info at your fingertips with both guides.

Movies

For movies, call **Movie Phone, 777-FILM**. Lists movies, theaters and times.

AREAS OF INTEREST AROUND AMES

AAA, located on the corner of El Camino and Shoreline, offers free California guidebooks to members. We will also have a reference area with local maps and books available to Academy members.

Palo Alto

University Avenue and around; boutiques, book stores, fast and cheap eateries, clothing stores, cafés.

San Jose

San Jose Museum of Art (408)294-2787
Egyptian Museum and Planetarium (408)947-3636
San Jose Flea Market
Lick Observatory
Tech Museum of Innovation (408)279-7150

Berkeley

UC Berkeley
Pacific Film Archive (510)642-1412
Lawrence Hall of Science (510)642-5132
Lawrence Berkeley National Lab (510)486-4387

Mount Tamalpais/Muir Woods

(415)556-0560
hiking and biking trails
10 minutes north of San Francisco on Highway 101
some of the tallest redwoods in the state

Sonoma/Napa Valley

Wineries by the hundreds, picnic spots, boutiques, etc.
(707)996-1090 Visitor's Bureau

Half Moon Bay

Wineries, beach, picnic spots

San Simeon

Hearst Castle (805)927-2020

Yosemite National Park

backpacking, camping, hiking in splendid national park
(209)372-0200

Coast Highway, Santa Cruz, Monterey

Mystery Spot	Santa Cruz Museum of Natural History
Beach Boardwalk & roller coaster	UC Santa Cruz
Cannery Row in Monterey	Carmel-by-the-Sea
Point Lobos State Park	Big Sur